

## SITE SENSITIVITY VERIFICATION REPORT (SSVR)

For

### THE PROPOSED DEVELOPMENT OF AN ECO-ESTATE ON THE REMAINDER OF ERF 220, STILL BAY EAST "THORNE HILL ECO-ESTATE"



|                           |                             |
|---------------------------|-----------------------------|
| <b>Compiled by</b>        | HillLand Environmental      |
| <b>HillLand reference</b> | STI22/1082/30               |
| <b>DEADP reference</b>    | 16/3/3/1/D5/19/0011/22      |
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| <b>Date</b>               | 27 July 2022                |
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**Site Sensitivity Verification Report (SSVR) for the proposed development of an Eco-Estate on the Remainder of Erf 220, Still Bay East**

**Submitted to:**

**Submission with the Revised Draft BAR – public participation period**

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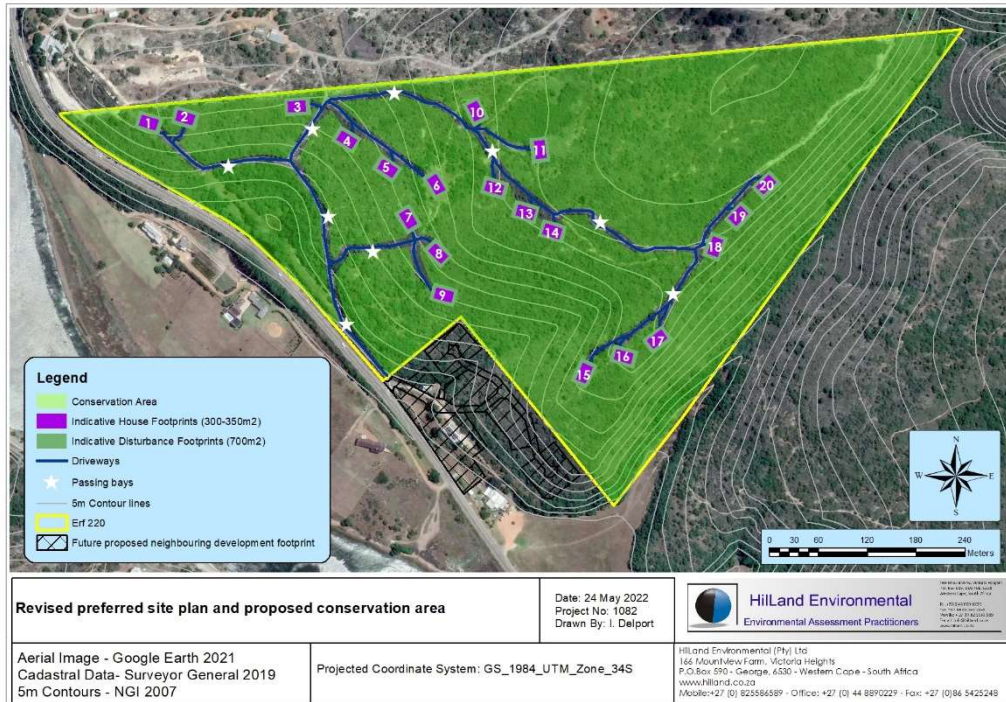
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# 1 INTRODUCTION

**HillLand Environmental** have been appointed as the Environmental Assessment Practitioners (EAP) by the applicant, **Still Bay Nature Resorts cc**, represent by Mr C Thorne, to ensure compliance with regulations contained in the National Environmental Management Act (NEMA Act No. 107 of 1998) and the Environmental Impact Assessment Regulations (2014), as amended, the proposed development of an eco-estate on the Remainder of Erf 220, Still Bay East.

The preferred site plan has been revised based on comments provided by DEADP and CapeNature.



# 2 PURPOSE OF THIS REPORT

The site sensitivity verification report forms part of the Basic Assessment Process for the proposed development of an eco-estate on the Remainder of Erf 220, Still Bay East. This report addresses the findings of the Screening Tool Report, generated from the National Web Based Environmental Screening Tool, and provides a motivation for the various specialist studies identified to be conducted. It also discusses whether the specialist studies forming part of this project are required to comply with the protocols.

The “Protocols for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes (“the protocols”) were promulgated in Government Notice No. 320, published in Government Gazette No. 43110 on the 20th of March 2020 and which came into effect on the 9th of May 2020. The Protocols are allowed for in terms of Sections 25(5)(a) and (h) and 44 of the National Environmental Management Act, 1998 (as amended) (Act No. 107 of 1998) (“NEMA”).

The Protocols must be complied with for every new application for Environmental Authorisation (EA) that is submitted after 9 May 2020. According to the Protocols, the EAP must verify the current use of the site in question and its environmental sensitivity as identified in the screening tool to determine the need for specific specialist inputs.

# 3 SENSITIVITY VERIFICATION AND METHODOLOGY

According to the protocols Site Sensitivity Verification must be undertaken by the EAP or in some circumstances by a specialist and must include the following:

- Desktop analysis
- Site inspection
- Other relevant information which can inform the sensitivity rating assigned by the screening tool.

The site sensitivity verification statement was compiled by the EAP, HillLand Environmental, based on the following:

- Site visits undertaken in August, September, November 2020, February 2021, August 2021, October 2021;
- A desktop investigation using biodiversity and land use mapping (Western Cape Biodiversity Spatial Biodiversity, CBA & ESA mapping, NBA mapping and Cape Farm Mapper);
- Input from the specialists;
- Input from Heritage Western Cape;
- Input from Department of Agriculture;
- Input from BGCMA.
- Input from Forestry.

**4 SITE SENSITIVITY VERIFICATION**



The table below serves to:

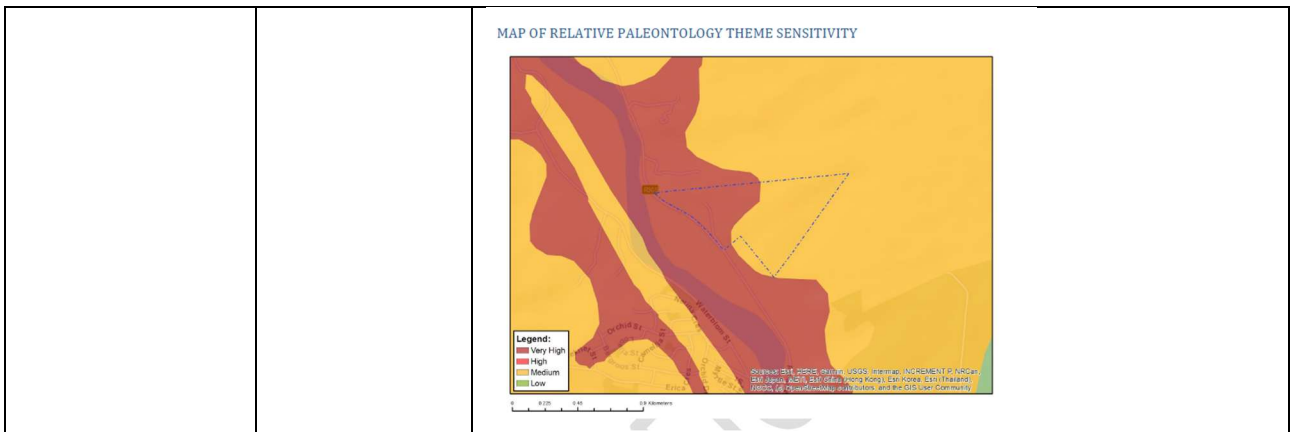
- Verify the land use and sensitivities identified in the screening tool report (March 2022);
- Confirm / refute the need for the various specialist inputs called for in terms of the screening tool report

The screening tool is attached to Annexure A. The screening tool was re-run in November 2021 & March 2022 to note any changes. (There were no changes between the screening tool reports).

Based on the screening tool reports and the environmental sensitivity of the site, the following themes are identified from their mapping:

| Theme                                      | Very High sensitivity                             | High sensitivity                                    | Medium sensitivity | Low sensitivity |
|--|---|---|--------------------|-----------------|
| Agriculture theme                          |   | X (incorrectly reported – see map should be medium) | X                  |                 |
| Animal species theme                       |   | X   |                    |                 |
| Aquatic biodiversity theme                 | X (incorrectly reported – see map should be low)  |   |                    | X               |
| Archaeological and cultural heritage theme | X   |   |                    |                 |
| Civil aviation theme                       |   | X   |                    |                 |
| Defence theme                              |   |   |                    | X               |
| Palaeontology theme                        | X (incorrectly reported – see map should be high) | X   |                    |                 |
| Plant species theme                        |   |   | X                  |                 |
| Terrestrial biodiversity theme             | X   |   |                    |                 |

| Theme Sensitivity   | Specialist assessment highlighted Yes/No | Comment   |
|---|--|---|
| Agriculture theme   | No                                       | <p><b>Incorrectly reported in screening tool report - sensitivity rating mapped as Medium and Low not High.</b></p> <p>An agricultural compliance statement has been done confirming the low rating. The property, topography, geology and soil are not suited for agricultural activities.</p> <p>MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY</p>    |
| Animal species theme<br>Plant species theme<br>Terrestrial biodiversity theme | Yes                                      | Included in the terrestrial biodiversity assessment undertaken. The study includes faunal and floral assessment, and a butterfly assessment.  |
| Aquatic biodiversity them   | Yes                                      | <p><b>Incorrectly reported in screening tool report – mapped as Low not Very High)</b></p> <p>No impact as confirmed by the specialist. The disturbance zones will be located outside of the 32m buffer from non-perennial drainage lines and will not be situated within any riparian habitat.</p> <p>Inputs from BGCMA has been addressed in the assessment.</p> <p>MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY</p>  |
| Civil aviation  | No                                       | No impact, confirmation requested from the civil aviation.  |
| Palaeontology, Archaeological and Cultural                                    | Yes                                      | <p>HWC confirmed that they required a HIA which included archaeology and palaeontology. <b>Final comments from HWC have been included in the revised Draft BAR. All recommendations in the HIA and HWC comments have been included in the EMPr.</b></p> <p><b>Palaeo – incorrectly reported in the screening tool report – High not Very high – see map</b></p>   |

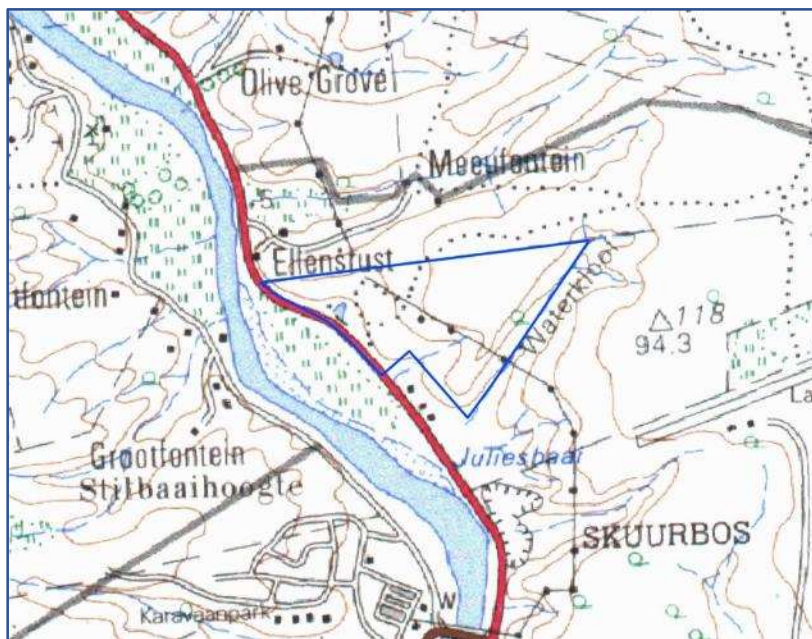


## 5 RESULTS OF THE SITE VERIFICATION

### 5.1 DESKTOP ASSESSMENT

#### 5.1.1 AERIAL PHOTOGRAPHIC ANALYSIS

The Surveyor-General's 1: 50 000 topo-cadastral map of the area shows the main road cutting across the south-western side of the site, with tracks onto the site, scattered dwellings on the site, a power line crossing the site and a small farm dam on the north-western side.



**Surveyor-General's 1: 50 000 topo-cadastral map of the area (NGI, 2021)**

The topo-cadastral map corresponds with the historic aerial imagery of the site dating back to 1969.



**Historic aerial imagery from 12.25.1969 (NGI, 2021) – site possibly used for grazing**



**Historic imagery 4.26.1999 (NGI, 2021) no visible agricultural uses**

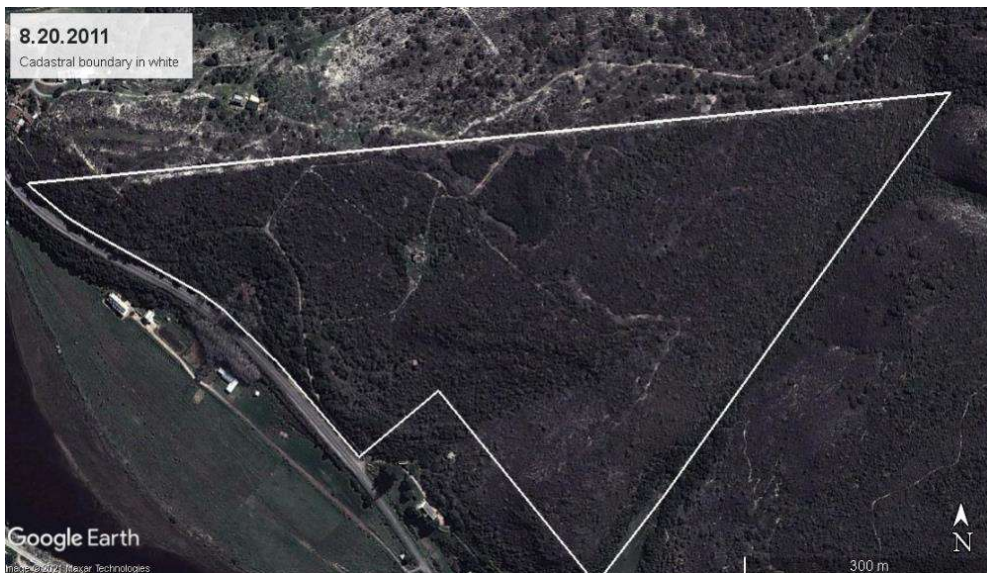
Although earlier imagery dating back to the year 2003 shows a more disturbed state for the north-western quadrant of the site. This 2003 historical aerial imagery shows that there was a **significant** gravel road crossing this corner of the site, the main dwelling was still intact (now reduced to scattered remains with no heritage value as confirmed by Dr. Peter Nilssen), and there was a more disturbed look to the vegetation (as confirmed by the specialist). There is also a dense area of alien vegetation in the northern part of the site.





**2003 Google Earth aerial image (approximate cadastral boundary in orange)**

The land use of the property remains the same on aerial imagery from 2004 onwards, with some increase in vegetation coverage. Since the earliest 1969 historic imagery, the property has not been used for agricultural activities besides limited grazing and some bee hives. This would be consistent with the vegetation of the property and the exposed limestone which makes the agricultural potential extremely low.





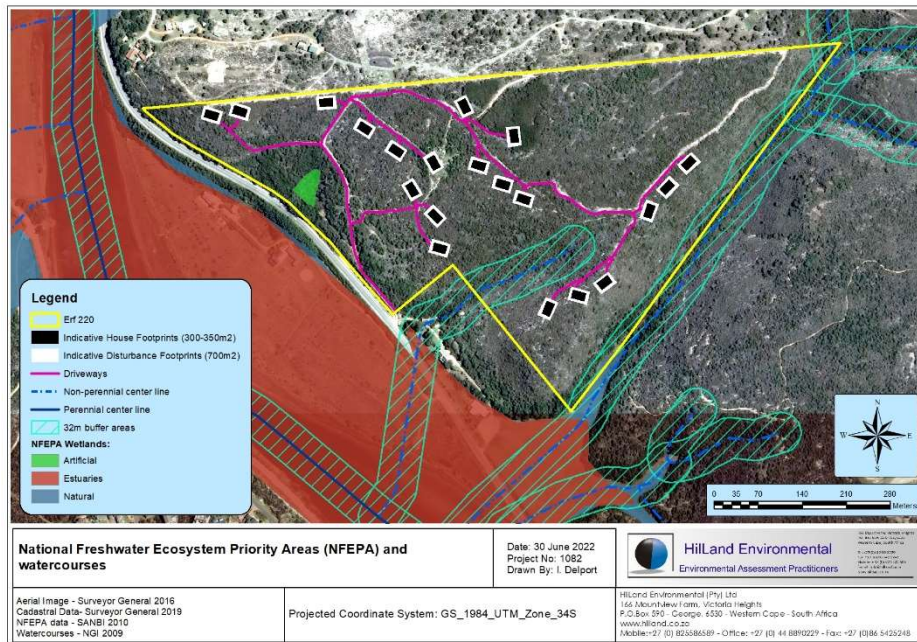
### 5.1.2 BIODIVERSITY MAPPING

NSBA, CBA and ESA mapping is all used and addressed in the BAR and has been taken into account in the Specialist report.

According to the NFEPA and watercourse map, the property is located adjacent to a perennial river, the Goukou River which has also been mapped as forming part of a natural wetland area and estuary. A non-perennial drainage line is located within the eastern part of the property, the proposed nearest housing unit will be located more than 32m from this drainage line.

A non-perennial drainage line lies just off the eastern property boundary. The proposal will have no impact on this drainage line.

According to NFEPA mapping, an artificial wetland area is located associated with an old farm dam indicated on the topographical map – this area will not be affected.



## 5.2 SITE ASSESSMENT

The terrestrial biodiversity specialist assessment confirmed the vegetation on the property consists of a mosaic of Fynbos and Thicket elements which forms part of ecosystem units that are mapped as Least Threatened. The thicket elements are dominant in the valleys, while the fynbos vegetation is dominant on the plateauxs.



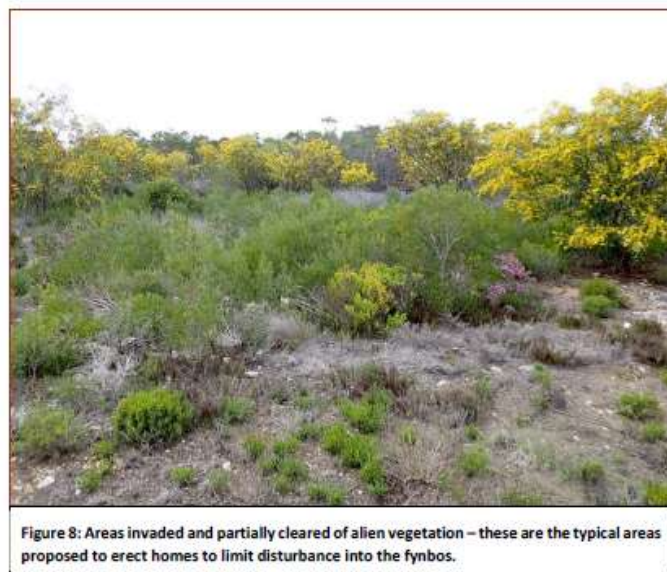
**Figure extracted from the terrestrial specialist report showing the typical fynbos vegetation present on the property (Hoare, 2021)**

There are various existing tracks crossing the property and these tracks will remain in use within the proposed eco-estate.



**Existing strip tracks on the property.**

Alien vegetation is present on the property and is systematically being removed.



**Figure 8: Areas invaded and partially cleared of alien vegetation – these are the typical areas proposed to erect homes to limit disturbance into the fynbos.**

**Figure extracted from the specialist report showing areas where alien clearing has been taking place.**

The specialist confirmed : *“The proposed development includes 20 individual homesteads scattered across the site but located within or close to existing disturbance or degradation. An impact assessment was undertaken that shows that loss of habitat could be of moderate significance, but that this can be reduced with mitigation measures that limit overall disturbance and that improve the overall long-term ecological functioning of the site. The design of the project already addresses this concern by locating infrastructure primarily in currently disturbed areas, which limits proposed disturbance to a very small footprint relative to the overall amount of natural habitat on site. Application of this design measure already*

reduces the potential impact to low significance" (Hoare, 2021). The revised site plan has been supported by the specialist.

**Heritage Value** - As requested by HWC, a full HIA has been undertaken which includes archaeology and palaeontology assessments. HWC provided their final approval of the HIA (as included in the revised Draft BAR).

The concluding statement of the assessment is as follows:

*"Impacts of the proposed Eco-Estate on heritage resources are considered to be negligible to zero and will have no negative influence on the tangible or intangible heritage value of the area. Chance fossil discoveries may have a positive impact, and the discovery of the now hidden shale walled dam is a further positive outcome of this investigation. Given the project's negligible impact to the heritage value of the area and the positive, albeit modest contribution to the local community and economy, the proposal is considered to be preferable over the No-Go option."*

*The low density, low profile and rustic vision of the proposed development are a welcome relief in comparison to high density developments within large parts of Still Bay's urban edge. The name Still Bay, or "quiet bay", is well portrayed by the ethos of the proposed Eco-Estate. It is this author's opinion, therefore, that the proposed development should be authorized in full.*



**Plate 1.** Examples of the receiving environment showing surroundings and existing developments, topography and vegetation cover. Note the R305 road (top left), densely vegetated valley on SE boundary of property (top right) and the Goukou River to the west (bottom). Direction of views is indicated by abbreviated compass bearing names on photographs.



**Plate 2. Examples of the receiving environment showing topography, valley to the SE (top left), Goukou River and Still Bay West (top right), vegetation cover, exposed surfaces and existing road. Direction of views is indicated by abbreviated compass bearing names on photographs.**



**Plate 3. Examples of the receiving environment showing topography, vegetation cover, exposed surfaces, existing roads and overhead lines. Direction of views is indicated by abbreviated compass bearing names on photographs.**



**Plate 4. Examples of the receiving environment showing topography, vegetation cover, reservoir and water tanks (top left), roads with imported shale surface (top right) and exposed calcrete (bottom left). Direction of views is indicated by abbreviated compass bearing names on photographs.**



Plate 5. Examples of the locality with the ruins of former structure(s) showing access road (top left), shacks adjacent to pile of rubble (top right), rubble including old door and frame (bottom left) and foundation slab of former structure (bottom left). Direction of views is indicated by abbreviated compass bearing names on photographs.



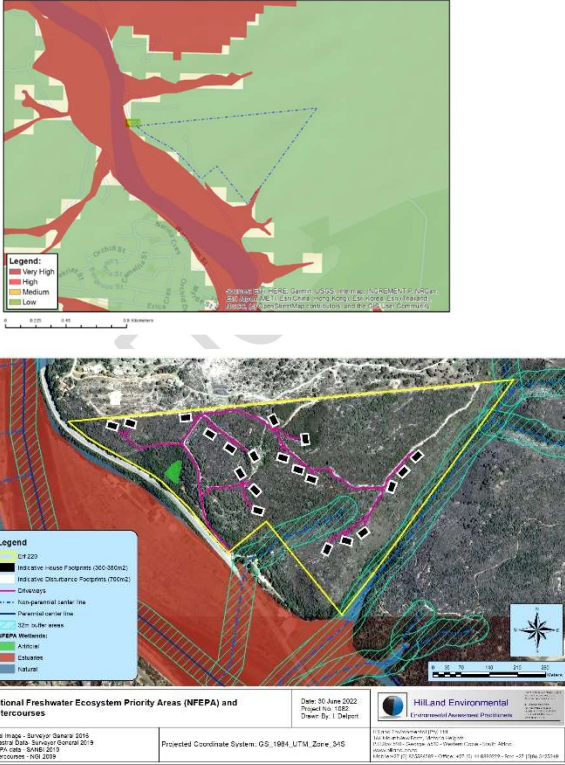
Plate 6. Examples of the shale exposed in the profile of road cutting shown in Figure 5. Note that the shale is nearly vertically bedded in places, showing significant folding / faulting / deformation. The GPS unit is 10cm long and the profile on the right is about 2m in height. Calccrete caps the shale in several places."

### 5.3 OTHER INPUTS

The Screen Tool Report identified and recommended the following specialist assessments;

- Landscape/Visual Impact Assessment – included in the BAR;
- Archaeological, Cultural Heritage, Palaeontology Impact Assessment – HIA done as pre HWC requirement, **final comments from HWC have been included in the BAR;**
- Terrestrial Biodiversity, Plant & Animal Impact Assessments - included in the BAR where relevant;
- Aquatic Biodiversity Impact Assessment – incorrect mapping listing – sensitivity disputed and confirmed by the terrestrial biodiversity specialist (**input from BGCMA included in the BAR;**)
- Socio-Economic Assessment – disputed by the EAP, the scale of the application does not warrant a Socio-Economic Assessment

The table below verifies the actual sensitivity of the aspects highlighted as needing potential specialist assessment / verification.

| Recommended impact assessment   | Motivation for including and not including the impact assessment  |
|---|---|
| <b>Landscape / visual impact assessment</b>   | <p>The Heritage specialist indicated that a visual assessment should not be required for this application and this was confirmed by HWC.</p> <p>A visual assessment has been undertaken to inform the design of the units.</p>  |
| <b>Archaeological and cultural heritage impact assessment and Palaeontology impact assessment</b> | <p>HWC requested a HIA including palaeontology and archaeology. The assessments dispute the sensitivity reported in the screening tool.</p>   |
| <b>Terrestrial biodiversity impact assessment</b>   | <p>Specialist assessment has been undertaken. The protocol for specialist assessment terrestrial biodiversity was used. Specialist disputes the Very High sensitivity rating and the specialist report is included in the BAR.</p>  |
| <b>Aquatic biodiversity impact assessment</b>   | <p>Disputed – incorrectly reported on in the Screening Tool report – see Map which confirms the low sensitivity and this is confirmed by the Terrestrial biodiversity specialist.</p> <p>MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY</p>  <p>The top map, titled 'MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY', shows a large area of 'Very High' sensitivity (red) and 'High' sensitivity (orange) in the central and northern parts of the site, with 'Medium' (yellow) and 'Low' (green) sensitivity in the southern and western parts. A legend in the bottom left corner defines these categories. The bottom map is a detailed site plan showing various features: SFR 229 (black outline), Indicative Disturbance Footprints (700m2) (yellow outline), Driveways (red lines), Non-permeable surface area (grey), Permeable surface area (light grey), 50m buffer areas (blue dashed lines), and Wetlands (green areas). A legend in the bottom left corner defines these features. The bottom map also includes a north arrow, a scale bar, and a title block with the following information: 'National Freshwater Ecosystem Priority Areas (NFEPA) and watercourses', 'Date: 30 June 2022', 'Project No: 1082', 'Drawn By: I. Delport', 'HillLand Environmental', 'Environmental Assessment Practitioners', 'Aerial Image - Surveyor General 2016', 'Cartographic Data - Surveyor General 2016', 'NFEPA Data - SANEM 2013', 'Watercourses - SANEM 2016', 'Projected Coordinate System: GCS_1984_UTM_Zone_34S', 'Scale: 1:1000', 'Drawing No: STI21/1082/30-01', 'Drawing Date: 30 June 2022', 'Drawing By: I. Delport', 'Drawing Check: I. Delport', 'Drawing Date: 30 June 2022', 'Drawing No: STI21/1082/30-01'.</p> |
| <b>Socio-economic impact assessment</b>   | <p>Based on the small scale of the proposed development, no specific assessment is deemed necessary. Socio-economics forms part of the BAR.</p>   |
| <b>Plant species assessment</b>   | <p>The protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial plant species was used by the specialist and presence or absence of the listed species is included in the assessment.</p>  |
| <b>Animal species assessment</b>  | <p>The protocol for the specialist assessment and minimum report content requirements for environmental impacts on animal species was used by the specialist and presence or absence of the listed species is included in the assessment. A taxon specific specialist was consulted in relation to the butterfly species and is included in the assessment report as an addendum.</p>   |



## 6 SUMMARY

Based on the above themes, the Screen Tool Report identified and recommended the following specialist assessments for verification (March 2022 screening tool report):

- Landscape/Visual Impact Assessment; - **a visual assessment has been undertaken and is included in the BAR.**
- Archaeological and Cultural Heritage Impact Assessment; &
- Palaeontology Impact Assessment – **HIA including palaeontology and archaeology has been done for HWC and forms part of the BAR. HWC provided their final comments that have been included in the BAR;**
- Terrestrial Biodiversity Impact, plant, animal species Assessment – **terrestrial biodiversity specialist assessment has been undertaken including butterfly verification.**
- Aquatic Biodiversity Impact Assessment – **Disputed** – the Screening tool report incorrectly reports on the sensitivity in relation to their mapping – confirm the LOW sensitivity rating as mapped. The proposed development zones will have no impact on any aquatic resources, as confirmed by terrestrial biodiversity specialist.
- Socio-Economic Assessment – **Disputed** – the proposal is in line with the local Municipal IDP and SDP – no specific assessment included – covered in the Draft BAR where applicable.

## 7 CONCLUSION OF THE SITE SENSITIVITY VERIFICATION

Based on the Site Sensitivity Verification only the following specialist studies have been undertaken by suitably registered scientists and are included in the draft BAR:

- Terrestrial biodiversity Assessment (including fauna and flora) – Dr David Hoare of David Hoare Consulting (Pty) Ltd (SACNASP Registration: 400221/05) & addendum Butterfly specialist report with site verification (Dr. C. Deacon & Dr. D. Edge);
- HIA - Dr. P. Nilssen; Palaeontological – Dr J Pether
- Visual impact assessment – Pieter Liebenberg, Camilla Eager registered architects and landscape architects, HillLand Environmental (mapping)
- Agricultural compliance statement – Gert Malan (SACNASP Registration: 128697/21).